

### **REMARKS**

After entry of this Amendment, claims 1-4 and 6 remain pending in the application. Claim 1 has been amended to include the elements of claim 5, and previously presented claim 5 has been cancelled. Claim 7 was previously cancelled. No new claims or new matter has been added through the present Amendment.

#### **Claim Interpretation**

The Applicant thanks the Examiner for providing the claim interpretation on page 2 of the present Office Action, but wishes to clarify the language of the Examiner's interpretation via the following revisions. Changes have been marked according to standard markings for claim amendments.

The ~~limitation~~ element of instant claim 1 that the heat conductive filler be surface treated with the silicone oil can be reasonably interpreted by a person having ordinary skill in the art as any composition wherein a silicone oil satisfying the ~~limitations~~ descriptions of (A<sub>1</sub>) and (A<sub>3</sub>) is present along with an ~~untreated~~ heat conductive filler. The presence of said silicone oil and said ~~untreated~~ heat conductive filler results in the interaction of the silicone oil and heat conductive filler in such a manner as to allow for surface treatment/~~modification~~ to take place. The presence of other ingredients in the composition does not preclude such a surface-treatment from taking place. There is nothing claimed which requires that the heat conductive filler be **first reacted**/treated with the silicone oil and then the resultant surface treated heat conductive filler be blended with other ingredients in the composition.

Claim Rejections

Claims 1-6 stand rejected under 35 U.S.C. §102(b) as anticipated by United States Patent No. 6,040,362 to Mine et al. (the '362 patent). As set forth above, claim 5 has been cancelled. Therefore, the Applicant submits that the rejection of claim 5 is moot and respectfully requests that the rejection be withdrawn. Further, in view of the amendment of claim 1 to incorporate the elements of claim 5, the Applicant respectfully submits that the currently amended claim 1, and claims 2-4 and 6 that depend from claim 1, are both novel and non-obvious over the prior art.

As the Examiner is aware, to anticipate a claim under 35 U.S.C. § 102, a reference must teach every element of the claim (see MPEP §2131). Stated another way, "[t]he identical invention must be shown in as complete detail as is contained in the ...claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). For the reasons set forth below, the Applicant respectfully asserts that the '362 patent does not teach every element of claim 1 as amended.

The Examiner contends the '362 patent indirectly teaches that metal powder (corresponding to component (B) of the present invention) may be present from 50 to 4,250 parts by weight (pbw) per 100 parts of adhesion promoter/silicone oil (corresponding to component (A) of the present invention), which the Examiner contends substantially encompasses the weight range of original dependent claim 5. The Applicant respectfully disagrees and asserts that the '362 patent fails to anticipate claim 1, as amended, on the basis that the '362 patent fails to teach the weight range of original dependent claim 5.

In particular, the Examiner provides three assertions regarding the '362 patent and the weight range of original dependent claim 5.

- First, the Examiner asserts the '362 patent teaches that up to 20 pbw of adhesion promoter (corresponding to component (A) of the present invention) can be present per 100 parts of an organopolysiloxane having at least two alkenyl groups (6:13 – 22) (Assertion #1).
- Further, the Examiner asserts the '362 patent teaches that the metal powder (corresponding to component (B) of the present invention) may be present from 10 to 850 pbw per 100 pbw of **component (A)** (7:67 – 8:14) (emphasis added) (Assertion #2).
- Finally, the Examiner concludes the '362 patent indirectly teaches that the metal powder (corresponding to component (B) of the present invention) may be present from 50 to 4,250 pbw per 100 parts of adhesion promoter/silicone oil (corresponding to component (A) of the present invention) (Assertion #3).

The Applicant agrees with Assertion #1. With respect to Assertion #2 however, it is unclear what the Examiner's mention of **component (A)** refers to since the '362 patent states "...the amount of metal powder used [is] in the range of 10 to 850 pbw per 100 pbw of **polymer**." (7:67 – 8:2) (emphasis added). If the Examiner is referring to component (A) of the '362 patent, the Applicant respectfully submits that the Examiner's weight range calculations are inaccurate. The Applicant respectfully asserts that the term "polymer" refers not only to component (A) of the '362 patent, but rather to a mixture of a minimum of components (A) **and** (B) of the '362 patent. In support of this argument, the Applicant respectfully notes that the '362 patent describes both component (A) and component (B) as "copolymers" at various points in the

specification, e.g. 2:49-50, 3:60-64, and the amount of metal powder appears to be based on a weight basis including components (A) **and** (B). Further, the '362 patent specifically notes when weight ranges are based on component (A) only for other ingredients, such as for the adhesion promoter (6:17-18), curing inhibitors (6:39-41), and inorganic fillers (6:62-63), but then specifically does not refer to component (A) when describing the weight range of the metal powder and instead states that "...the amount of metal powder used [is] in the range of 10 to 850 pbw per 100 pbw of **polymer**." (7:67 – 8:2) (emphasis added). Further still, the '362 patent interchanges the terminology "polymer" and "polymer composition" at various points in the specification when referring to dispersing the metal powder, e.g. compare 6:64-65 and 8:14-20, which further indicates that the amount of metal powder disclosed in 7:67 – 8:2 is based on a mixture of a minimum of components (A) **and** (B). Therefore, the Applicant respectfully submits that the weight basis of the weight range of the metal powder is not clear, and that the weight basis is not solely based on component (A).

Moreover, referring to the Examples of the '362 patent for guidance as to the weight basis, Practical Examples 1 and 3 do not disclose the weight range of original dependent claim 5 of the present invention, which provides additional support for the Applicant's argument. Practical Example 1 sets forth that 7 pbw of 3-glycidoxypropyltrimethoxysilane, i.e., the adhesion promoter of the '362 patent being compared to component (A) of the present invention, is mixed with, among other ingredients, 85 pbw of the aluminum powder prepared in Reference Example 1. The Applicant respectfully notes that it is not necessary to apply the ratio of [pbw of metal powder : pbw of adhesion promoter] set forth in Assertion

#3 to the components of Practical Example 1 because silicone oils described by formulas (A<sub>1</sub>) and (A<sub>3</sub>) of the present invention are not anticipated by 3-glycidoxypyltrimethoxysilane. In summary, Practical Example 1 does not disclose the weight range of original dependent claim 5.

Further, with respect to Practical Example 3, six pbw of a dimethylpolysiloxane, corresponding to component (A<sub>3</sub>) of the present invention, is mixed with, among other ingredients, 350 pbw of aluminum powder prepared in Reference Examples 2 and 3. Here, applying the ratio of [pbw of metal powder : pbw of adhesion promoter] set forth in Assertion #3 to the components of Practical Example 3, there are about 5,833 pbw of metal powder : 100 pbw of adhesion promoter/silicone oil. That is, 350 pbw of metal powder : 6 pbw of adhesion promoter/silicone oil equals 5,833 pbw of metal powder : 100 pbw of adhesion promoter/silicone oil. Since 5,833 pbw falls outside the range set forth in original dependent claim 5, the Applicant respectfully asserts therefore that Practical Example 3 does not disclose the weight range of original dependent claim 5. For the reasons set forth above, the Applicant respectfully asserts that the '362 patent does not teach that the content of component (B) is 500 to 3,500 pbw per 100 pbw of component (A). Thus, claim 1 as now amended with the content of component (B) from original dependent claim 5 is not anticipated by the '362 patent.

Further, in addition to the arguments set forth above, the Applicant respectfully submits that dependent claim 3 is independently patentable both under the 35 U.S.C. §102 and §103 standards apart from the other pending claims. In particular, the Applicant respectfully submits

that the Examiner has misinterpreted the '362 patent with respect to the rejection of claim 3. The Examiner contends that the '362 patent "further teaches that the alumina powder can be a mixture of approximately 14% (50 parts) of an irregular-shaped alumina powder and 86% of a substantially spherical/quasi spherical alumina powder (Practical Example 3 of Table 2)," and therefore contends that claim 3 reads on the '362 patent. Upon closer evaluation, however, the Applicant respectfully asserts that Practical Example 3 of the '362 patent does not disclose all of the elements of component (B<sub>22</sub>) of the present invention. That is, Practical Example 3 teaches a mixture of 300 pbw of a quasi-spherical powder of Reference Example 3 (corresponding to component (B<sub>21</sub>)), and 50 pbw of an irregular-shaped powder, i.e., a flake, of Reference Example 2 (corresponding to component (B<sub>22</sub>)). Importantly, the irregular-shaped powder of Reference Example 2 has a mean particle size of **10 µm**, whereas claim 3 specifies that the irregular-shaped powder has a particle size of **0.1 to 5 µm**. Thus, the Applicant respectfully submits that claim 3 does not read on the '362 patent and therefore requests, for at least the reasons set forth above, that the rejection of claim 3 be withdrawn.

In view of the foregoing, the Applicant respectfully submits that currently amended claim 1, as well as claims 2-4 and 6 that depend from claim 1, are both novel and non-obvious over the prior art including over the '362 patent. As such, the Applicant submits that the claims are now in condition for allowance and respectfully requests such allowance.

This response is timely filed; thus, it is believed that no further fees are presently due. However, if necessary, the Commissioner is authorized to charge Deposit Account No. 08-2789, in the name of Howard & Howard Attorneys, P.C. for any additional fees or to credit the account for any overpayment.

**Respectfully submitted,**

**HOWARD & HOWARD ATTORNEYS**

August 6, 2008  
Date

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